REMARKS

By the foregoing Amendment, Claims 1, 3, 4, 6, 7, 9, 14-20, 23, 25-38, 40, 41, 46, 48, 49-62, 64, 66, 67, 69-75 and 77 have been amended, Claim 5 has been cancelled, and new Claims 78-87 have been added. Favorable reconsideration of the application is respectfully requested.

Claims 1-48 and 70-72 were rejected under 35 U.S.C. 101, on the grounds that the claims were directed to non-statutory subject matter, as positively reciting a human body, patient, patient's body or part thereof. Claims 1, 26, 36, 49 and 70 have been amended to recite means for removably affixing the physiological monitoring system or the like to a patient's forehead, and throughout the claims positive recitation of a patient or part of a patient has been avoided, so that it is believed that the rejection of Claims 1-48 and 70-72 under 35 U.S.C. 101 can now be withdrawn.

Claims 16-18, 22, 27, and 32-35 were rejected under 35 U.S.C. 112, second paragraph, on the grounds of indefiniteness. It is believed that the Examiner intended to refer to Claim 23 instead of Claim 22, in view of the Examiner's comments concerning Claim 23. Claims 14 and 31 have been amended to recite a threshold level of oxyhemoglobin desaturation, so that it is believed that Claims 16-18, and 33-35 now have antecedent basis in referring to such a threshold level. Claims 23, 27 and 53 have been amended to recite and provide antecedent basis for recitation of "patient clinical information" and to omit reference to "anthropomorphic" information. Claim 32 has been amended to recite "values of the pulse oximetry data signals." It is believed that the

rejection of Claims 16-18, 22, 27, and 32-35 on the grounds of indefiniteness can also now be withdrawn.

Claims 1-8, 10, 11 and 25 were rejected under 35 U.S.C. 102(b) on the grounds of anticipation by Bowers et al. Claim 5 has been cancelled. Claim 1 recites "means for removably affixing the physiological monitoring system to the patient's forehead," and "wherein said pulse oximetry sensor and said storage memory are mounted on the physiological monitoring system, eliminating all lead wires between the patient and the storage memory." As is discussed in the specification at page 8, lines 8-18, lead wires from conventional pulse-oximetry sensors pulse-oximeter monitoring equipment are a main source of measurement artifacts. As is further discussed at page 11, line 11, to page 12, line 4, in the present invention, the physiological monitoring system eliminates all wire leads between the patient and a data recorder. At column 2 line 55, to column 3, line 65, Bowers et al. discloses headgear 12 that is connected with a signal processor 26 by means of a cable 48, with the signal processor recording the data on a data recorder 28, as is illustrated in Figs. 1 and 3. It is respectfully submitted that Bowers et al. does not teach, disclose or suggest eliminating all lead wires between the patient and the storage memory as is claimed, and that Claims 1-4, 6-8, 10, 11 and 25 are novel and inventive over Bowers et al. It is therefore respectfully submitted that the rejection relating to Claims 1-4, 6-8, 10, 11 and 25 on the grounds of anticipation by Bowers et al. should be withdrawn.

Claims 1, 2, 5-8, 14-16, 21, 26 and 30-33 were rejected under 35 U.S.C. 102(b) on the grounds of anticipation by Yaminishi et al. Claim 5 has been cancelled, and Claim 1

recites "means for removably affixing the physiological monitoring system to the patient's forehead," and "wherein said pulse oximetry sensor and said storage memory are mounted on the physiological monitoring system, eliminating all lead wires between the patient and the storage memory." Claim 26 similarly has been amended to recite "means for removably affixing the physiological monitoring system to the patient's forehead, whereby all lead wires between the patient and the storage means are eliminated." Yaminishi et al. does not teach, disclose or suggest a means for removably affixing a physiological monitoring system to a patient's forehead, and shows in Fig. 1 that the pulse oximeter is connected by a line to a memory in external equipment 12, as is discussed in Yaminishi et al. from column 2, line 67 to column 3, line 5. It is respectfully submitted that Yaminishi et al. does not teach, disclose or suggest eliminating all lead wires between the patient and the storage memory as is claimed, and that Claims 1, 2, 6-8, 14-16, 21, 26 and 30-33 are novel and inventive over Yaminishi et al. It is therefore respectfully submitted that the rejection relating to Claims 1, 2, 6-8, 14-16, 21, 26 and 30-33 on the grounds of anticipation by Yaminishi et al. should be withdrawn.

Claims 1, 2, 5-8, 12, 14-16, 20, 36, 39, 47 and 48 were rejected under 35 U.S.C. 102(b) on the grounds of anticipation by Clauson et al. However, it is noted that Clauson et al. discloses a cable 20 from oximeter sensor 18 to oximeter 17, digital converter 21 and microprocessor 22 which stores data in RAM 23. Claim 36 also recites "all lead wires between the patient and the storage memory are eliminated." As noted above, it is respectfully submitted that Clauson et al. does not teach, disclose or suggest eliminating all lead wires between the patient and the storage memory as is claimed, and that Claims

1, 2, 6-8, 12, 14-16, 20, 36, 39, 47 and 48 are novel and inventive over Clauson et al. It is therefore respectfully submitted that the rejection relating to Claims 1, 2, 5-8, 12, 14-16, 20, 36, 39, 47 and 48 on the grounds of anticipation by Clauson et al. should be withdrawn.

Claims 26, 28, 29 and 30 were rejected under 35 U.S.C. 102(e) on the grounds of anticipation by Karakasoglu et al. While Karakasoglu et al. discloses a headpiece including an onboard memory 67, as is pointed out at column 5, lines 45-47, all of the sensors are connected to the electronic circuitry 61 by individual cables 76. Claim 26 recites "means for removably affixing the physiological monitoring system to the patient's forehead, whereby all lead wires between the patient and the storage means are eliminated." It is respectfully submitted that Karakasoglu et al. does not teach, disclose or suggest eliminating all lead wires between the patient and the storage memory as is claimed, and that Claims 26, 28, 29 and 30 are novel and inventive over Karakasoglu et al. It is therefore respectfully submitted that the rejection relating to Claims 26, 28, 29 and 30 on the grounds of anticipation by Karakasoglu et al. should be withdrawn.

Claim 13 was rejected under 35 U.S.C. 103(a) on the grounds of obviousness from Bowers et al. in view of Sasagawa, teaching wireless communication. Claim 1 recites "means for removably affixing the physiological monitoring system to the patient's forehead," "a storage memory" and "wherein said pulse oximetry sensor and said storage memory are mounted on the physiological monitoring system, eliminating all lead wires between the patient and the storage memory." It is respectfully submitted that Bowers et al. and Sasagawa, when taken either individually or together, do not teach, disclose or

suggest means for removably affixing a physiological monitoring system, including a pulse oximetry sensor and a storage memory, to a patient's forehead, eliminating all lead wires between the patient and the storage memory as is claimed. It is respectfully submitted that Claim 13 is novel and inventive over Bowers et al. and Sasagawa, and that the rejection of Claim 13 on the grounds of obviousness from Bowers et al. in view of Sasagawa should be withdrawn.

Claims 37, 38, 70-73 and 77 were rejected under 35 U.S.C. 103(a) on the grounds of obviousness from Clauson et al. in view of Bowers et al. Claim 36 recites "all lead wires between the patient and the storage memory are eliminated" and Claim 70 recites "means for removably affixing said pulse oximetry sensor, said patient head movement sensor, said microphone, said power means and said memory means to the patient's forehead, wherein said sensors and power means detect the patient's oxyhemoglobin saturation, pulse rate, head movement and sounds, and produce the corresponding data signals, thereby monitoring said patient's condition, and whereby all lead wires between the patient and the memory means are eliminated." It is respectfully submitted that Clauson et al. and Bowers et al., when taken either individually or together, do not teach, disclose or suggest means for removably affixing said pulse oximetry sensor, a patient head movement sensor, a microphone, a power means and a memory means to a patient's forehead, whereby all lead wires between the patient and the memory means are eliminated, as is claimed. It is respectfully submitted that Claims 37, 38, 70-73 and 77 are novel and inventive over Clauson et al. and Bowers et al., and that the rejection of

Claims 37, 38, 70-73 and 77 on the grounds of obviousness from Clauson et al. in view of Bowers et al. should be withdrawn.

Claims 41 and 43 were rejected under 35 U.S.C. 103(a) on the grounds of obviousness from Clauson et al. in view of Coetzee. Claims 41 and 43 depend from Claim 36, which recites "all lead wires between the patient and the storage memory are eliminated", and it is respectfully submitted that Clauson et al. and Coetzee, when taken either individually or together, do not teach, disclose or suggest eliminating all lead wires between the patient and the storage memory as is claimed. It is therefore respectfully submitted that Claims 41 and 43 are novel and inventive over Clauson et al. and Coetzee, and that the rejection of Claims 41 and 43 on the grounds of obviousness from Clauson et al. in view of Coetzee should be withdrawn.

Claims 41-43 were rejected under 35 U.S.C. 103(a) on the grounds of obviousness from Clauson et al. in view of Baker, Jr. Claims 41-43 depend from Claim 36, which recites "a storage memory that stores the pulse oximetry data signals produced by said pulse oximetry sensor" and "means for removably affixing said pulse oximetry sensor and circuitry, said power source, and said storage memory to the patient's forehead" and "whereby all lead wires between the patient and the storage memory are eliminated." Baker, Jr. discloses that the calculated oxygen saturation and pulse rate values are sent to a display. However, it is respectfully submitted that Clauson et al. and Baker, Jr., either taken individually or together, do not teach, disclose or suggest means for removably affixing said pulse oximetry sensor and circuitry, said power source, and said storage memory to the patient's forehead, and eliminating all lead wires between the patient and

the storage memory, as is claimed. It is therefore respectfully submitted that Claims 41-43 are novel and inventive over Clauson et al. and Baker, Jr., and that the rejection of Claims 41 and 43 on the grounds of obviousness from Clauson et al. in view of Baker, Jr. should be withdrawn.

Claim 44 was rejected under 35 U.S.C. 103(a) on the grounds of obviousness from Clauson et al. in view of Lynn. Claim 44 also depends from Claim 36, discussed above, and it is respectfully submitted that Clauson et al. and Lynn, either taken individually or together, do not teach, disclose or suggest means for removably affixing a pulse oximetry sensor and circuitry, a power source, and a storage memory to a patient's forehead, and eliminating all lead wires between the patient and the storage memory, as is claimed. It is therefore respectfully submitted that Claim 44 is novel and inventive over Clauson et al. and Lynn, and that the rejection of Claim 44 on the grounds of obviousness from Clauson et al. in view of Lynn should be withdrawn.

Claims 49-51, 68 and 69 were rejected under 35 U.S.C. 103(a) on the grounds of obviousness from Clauson et al. in view of Bowers et al. Claim 49 recites "attaching a physiological monitoring system to a patient's forehead, wherein the physiological monitoring system includes (a) a pulse oximetry sensor and circuitry that detects oxyhemoglobin saturation and pulse rate of the patient and produces corresponding pulse oximetry data signals, and (b) a storage memory that stores the pulse oximetry data signals produced by said pulse oximetry sensor, thereby eliminating all lead wires between the patient and the storage memory." Claims 50-51, 68 and 69 depend from Claim 49. It is respectfully submitted that Clauson et al. and Bowers et al., either taken

individually or together, do not teach, disclose or suggest attaching a physiological monitoring system including a pulse oximetry sensor and circuitry, and a storage memory to a patient's forehead, and eliminating all lead wires between the patient and the storage memory, as is claimed. It is respectfully submitted that Claims 49-51, 68 and 69 are novel and inventive over Clauson et al. and Bowers et al., and that the rejection of Claims 49-51, 68 and 69 on the grounds of obviousness from Clauson et al. in view of Bowers et al. should be withdrawn.

Claims 62 and 64 were rejected under 35 U.S.C. 103(a) on the grounds of obviousness from Clauson et al. in view of Bowers et al., and further in view of Coetzee. Claims 62 and 64 depend from Claim 49, which recites "attaching a physiological monitoring system to a patient's forehead, wherein the physiological monitoring system includes (a) a pulse oximetry sensor and circuitry that detects oxyhemoglobin saturation and pulse rate of the patient and produces corresponding pulse oximetry data signals, and (b) a storage memory that stores the pulse oximetry data signals produced by said pulse oximetry sensor, thereby eliminating all lead wires between the patient and the storage memory." It is respectfully submitted that Clauson et al., Bowers et al. and Coetzee, either taken individually or together, do not teach, disclose or suggest attaching a physiological monitoring system including a pulse oximetry sensor and circuitry, and a storage memory to a patient's forehead, and eliminating all lead wires between the patient and the storage memory. It is thus respectfully submitted that Claims 62 and 64 are novel and inventive over Clauson et al., Bowers et al. and Coetzee, and that the rejection of

Claims 62 and 64 on the grounds of obviousness from Clauson et al. in view of Bowers et al., and further in view of Coetzee, should be withdrawn.

Claims 62-64 were rejected under 35 U.S.C. 103(a) on the grounds of obviousness from Clauson et al. in view of Bowers et al., and further in view of Baker Jr. As noted above, Baker, Jr. discloses that the calculated oxygen saturation and pulse rate values are sent to a display, and Claim 49 recites "attaching a physiological monitoring system to a patient's forehead, wherein the physiological monitoring system includes (a) a pulse oximetry sensor and circuitry that detects oxyhemoglobin saturation and pulse rate of the patient and produces corresponding pulse oximetry data signals, and (b) a storage memory that stores the pulse oximetry data signals produced by said pulse oximetry sensor, thereby eliminating all lead wires between the patient and the storage memory." It is respectfully submitted that Clauson et al., Bowers et al. and Baker, Jr., either taken individually or together, do not teach, disclose or suggest attaching a physiological monitoring system including a pulse oximetry sensor and circuitry, and a storage memory to a patient's forehead, and eliminating all lead wires between the patient and the storage memory. It is thus respectfully submitted that Claims 62 and 64 are novel and inventive over Clauson et al., Bowers et al. and Baker, Jr., and that the rejection of Claims 62 and 64 on the grounds of obviousness from Clauson et al. in view of Bowers et al., and further in view of Baker, Jr., should be withdrawn.

Claim 65 was rejected under 35 U.S.C. 103(a) on the grounds of obviousness from Clauson et al. in view of Bowers et al., and further in view of Lynn. Claim 65 depends from Claim 49, which recites "attaching a physiological monitoring system to a patient's

forehead, wherein the physiological monitoring system includes (a) a pulse oximetry sensor and circuitry that detects oxyhemoglobin saturation and pulse rate of the patient and produces corresponding pulse oximetry data signals, and (b) a storage memory that stores the pulse oximetry data signals produced by said pulse oximetry sensor, thereby eliminating all lead wires between the patient and the storage memory." It is respectfully submitted that Clauson et al., Bowers et al. and Lynn, either taken individually or together, do not teach, disclose or suggest attaching a physiological monitoring system including a pulse oximetry sensor and circuitry, and a storage memory to a patient's forehead, and eliminating all lead wires between the patient and the storage memory. It is thus respectfully submitted that Claim 65 is novel and inventive over Clauson et al., Bowers et al. and Lynn, and that the rejection of Claim 65 on the grounds of obviousness from Clauson et al. in view of Bowers et al., and further in view of Lynn, should be withdrawn.

The Applicant wishes to thank the Examiner for the indication of allowable subject matter in Claims 9, 17-19, 22-24, 27, 34, 35, 40, 45, 46, 52, 53, 54-61, 66, 67 and 74-76; however, Applicant wishes to defer rewriting of claims in independent form as suggested by the Examiner, in view of the foregoing amendments and remarks.

Applicant has reviewed the additional prior art made of record and not relied upon, and it is believed that the additional prior art made of record and not relied upon is no more pertinent than the references actually applied.

In light of the foregoing amendments and remarks, it is respectfully submitted that the application should now be in condition for allowance, and an early favorable action in this regard is respectfully requested.

Respectfully submitted,

FULWIDER PATTON LEE & UTECHT, LLP

By: 
David G. Parkhurst
Reg. No. 29,422

DGP/rvw
Encls.: Return Postcard

Howard Hughes Center
6060 Center Drive, Tenth Floor
Los Angeles, CA 90045
Telephone: (310) 824-5555
Facsimile: (310) 824-9696
Customer No. 24201